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DECLARATION AND POWER OF ATTORNEY FOR ORIGINAL U.S. PATENT APPLICATION

Attorney's Docket No. NOVLP037

As a below-named invent	or, I hereby declare that:		•
My residence, post office	address and citizenship are as state	d below next to my name.	
plural names are listed be APPLICATIONS AND N	ginal, first and sole inventor (if only low) of the subject matter which is METHODS OF MAKING NITROG OCESSING the specification of wh	claimed and for which a patent SEN-FREE ANTI-REFLECTIVE	an original, first and joint inventor (if t is sought on the invention entitled: /E LAYERS FOR
(check one)	1. is attached hereto.	·	
	2. was filed on November 2 U.S. Application No. 09 and was amended on	/990,197	-
		cation No.	
I hereby state that I hav amended by any amendn		ntents of the above-identified	specification, including the claims, as
I acknowledge the duty to 37, CFR § 1.56.	to disclose information which is ma	aterial to the patentability of th	is application in accordance with Title
Prior Foreign Applicati	on(s)		
for patent or inventor's of than the United States,	certificate, or § 365(a) of any PCT listed below and have identified	International application which below, by checking the box,	f § 365(b) of any foreign application(s) h designated at least one country other any foreign application for patent or of the application on which priority is
			Priority Benefits Claimed? Yes No
(Application No.)	(Country)	(Filing Date)	•
(Application No.)	(Country)	(Filing Date)	Yes No
Provisional Application	u(s)		
I hereby claim the benef	it under 35 U.S.C. §119(e) of any U	Inited States provisional applic	ation(s) listed below:
60/302,112 (Application No.)	June 28, 2001 (Filing Date)	<u>.</u>	
(Application No.)	(Filing Date)		

Atty. Dkt. No.: NOVLP037

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(Revised 03/00)

Prior U.S. Application(s)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

(Application No.)	(Filing Date)	(Status - patented, pending, abandoned)
(Application No.)	(Filing Date)	(Status - patented, pending, abandoned)

Power of Attorney

And I hereby appoint the law firm of Beyer Weaver & Thomas, LLP and all practitioners who are associated with the Customer Number 022434 as my principal attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Direct Correspondence To:

Customer Number: 022434



Direct Telephone Calls To:

Lauren L. Stevens at telephone number (650) 961-8300

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Typewritten Full Name of			
Sole or First Inventor:	Bart van Schravendijk	Citizenship:	Netherlands
Inventor's signature:	8) 194	Date of Signatu	re: 2/26/02
Residence: (City)	Sunnyvale	(State/Country)	CA/US
Post Office Address:	741 Islay Court, Sunnyvale, CA 94087		
Second Inventor:	Ming Li	Citizenship:	People's Republic of China
Inventor's signature:	-MM7 x 7	Date of Signatu	re:/ <u> </u> /02
Residence: (City)	Pleasanton	(State/Country)	CA/US
Post Office Address:	4606 Mason Street, Pleasanton, CA 94588		

Atty. Dkt. No.: NOVLP037

Page 2 of 3

Third Inventor:	Jason Tian	Citizenship: USA
Inventor's signature:	Muleni	Date of Signature: \(\frac{1}{2}\right)\(\right)\)
Residence: (City)	Milpitas	(State/Country) <u>CA/US</u>
Post Office Address:	782 Superior Road, Milpitas, CA 95035	
Fourth Inventor:	Tom Manusier///	Citizenship: USA
Inventor's signature:		Date of Signature: $\frac{2}{25/62}$
Residence: (City)	San Jose	(State/Country) <u>CA/US</u>
Post Office Address:	411 Park Avenue, #319, San Jose, CA 95110	
Fifth Inventor:	Zia Karim M. Zioul Karim @4	Citizenship: Bangladesh U.S.A.
Inventor's signature:	10 Your	Date of Signature: 2/27/02
Residence: (City)	San Jose	(State/Country) <u>CA/US</u>
Post Office Address:	2820 McAnn Court. San Jose, CA 95121	· ·



MAY 22, 2002

PTAS

Chief Information Officer Washington, DC 20231 www.uspto.gov

BEYER WEAVER & THOMAS, LLP LAUREN L. STEVENS P.O. BOX 778 BERKELEY, CA 94704-0778



UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 03/19/2002

REEL/FRAME: 012722/0967

NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

VAN SCHRAVENDIJK, BART

DOC DATE: 02/26/2002

ASSIGNOR:

LI, MING

DOC DATE: 02/25/2002

ASSIGNOR:

TIAN, JASON

DOC DATE: 02/27/2002

ASSIGNOR:

MOUNTSIER, TOM

DOC DATE: 02/25/2002

ASSIGNOR:

KARIM, M. ZIAUL

DOC DATE: 02/27/2002

ASSIGNEE:

NOVELLUS SYSTEMS, INC. 3970 NORTH FIRST STREET SAN JOSE, CALIFORNIA 95134

012722/0967 PAGE 2

SERIAL NUMBER: 09990197 PATENT NUMBER:

FILING DATE: 11/21/2001

ISSUE DATE:

JEFFREY OLSEN, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS ASSIC



R SHEET

102037684 3-19-02 To: Honorable Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy thereof. 1. Name of conveying party(ies) Bart van Schravendijk b) Ming Li a) d) Tom Mountsier Jason Tian c) M. Ziaul Karim e) Name and address of receiving party(ies): 2. Name: Novellus Systems, Inc. a) 3970 North First Street Address: San Jose, CA 95134 Nature of conveyance 3. Assignment Merger Change of Name Security Agreement License Agreement Other Bart van Schravendijk executed February 26, 2002 Execution Date: Ming Li executed February 25, 2002 Jason Tian executed February 27, 2002 Tom Mountsier executed February 25, 2002 M. Ziaul Karim executed February 27, 2002 Application Number(s) or Patent Number(s): 09/990,197 4. The title of the (new) application is: APPLICATIONS AND METHODS OF MAKING NITROGEN-FREE ANTI-REFLECTIVE LAYERS FOR SEMICONDUCTOR PROCESSING Please send all correspondence concerning this (these) documents to: 5. Beyer Weaver & Thomas, LLP P.O. Box 778 Berkeley, CA 94704-0778 Ph: (650) 961-8300 Fax: (650) 961-8301 (Customer Number: 022434) 6. Total number of applications and patents involved: 1 Total fee (37 CFR 3.41): \$40.00 7. Enclosed Any additional fees are authorized to be charged to Deposit Account No. 500388 To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Date: March 7, 2002 Lauren L. Stevens 03/29/2002 GTON11 00000076 09990197 Registration No. 36,691

Attorney Docket No. NOVLP037

01 FC:581

40.00 OF

(Revised 12/01)

ASSIGNMENT OF PATENT APPLICATION

(Not Accompanying Application)

Whereas I/we the undersigned inventor(s) have invented certain new and useful improvements as set forth in the patent application entitled:

APPLICATIONS AND METHODS OF MAKING NITROGEN-FREE ANTI-REFLECTIVE LAYERS FOR SEMICONDUCTOR PROCESSING

(Atty. Docket No.: NOVLP03//NVLS-519) ☐ for which I have executed a U.S. patent application on even date herewith. (Accompanying) ☑ which bears U.S. application No. 09/990,197. (Not accompanying)		
which is a U.S. provisional application. (Accompanying)		
For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/We the undersigned inventor(s) hereby:		
Sell(s), assign(s) and transfer(s) to Novellus Systems, Inc., a California corporation having a place of business at 3970 North First Street, San Jose, California 95134, (hereinafter referred to as "ASSIGNEE"), the entire right title and interest in any and all improvements and inventions disclosed in, application(s) based upon, and Patent(s) (including foreign patents) granted upon the information which is disclosed in the above referenced application.		
2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division(s), continuation(s), substitutes(s) or reissue(s) thereof to the ASSIGNEE.		
Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative and applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.		
4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.		
5) Warrant and represent that I/we have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.		
Signed on the date(s) indicated beside my (our) signature(s).		
1. Inventor Signature: Date: 2(26/02 Bart yan Schravendijk		
State of California)		
On this 26 day of February, in the year 2002, before me, Notary Public, personally appeared Bart van Schravendijk, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity(ies), and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.		
WITNESS my hand and official seal. ROLAND TSO Commission # 1236984 Notary Public - Collionnia		

Page 1 of 3

Attorney Docket No.: NOVLP037/NVLS-519

2. Inventor Signature: Ming Li	Date: 2/25/02
State of California County of Santa Clara ss.	
On this 25 day of Febraary, in Notary Public personally apple known to me (or proved to me on the basis of satisfactory evid name is subscribed to the within instrument, and acknowledge the same in his/her authorized capacity(ies), and that by his/he the person, or the entity upon behalf of which the person acted, each of WITNESS my hand and official seal. Notary Signature 3. Inventor Signature: Jason Tian	ence) to be the person whose d to me that he/she executed r signature on the instrument
State of California County of Santa Clara ss.	
On this 2 day of February, in Notary Public personally apper known to me (or proved to me on the basis of satisfactory evid name is subscribed to the within instrument, and acknowledge the same in his/her authorized capacity(ies), and that by his/he the person, or the entity upon behalf of which the person acted, each of WITNESS my hand and official seal. Notary Signature 4. Inventor Signature:	ence) to be the person whose d to me that he/she executed r signature on the instrument
State of California County of Santa Clara ss.	
On this 25 day of Notary Public personally personally known to me (or proved to me on the basis of satt person whose name is subscribed to the within instrument, at he/she executed the same in his/her authorized capacity(ies), and the instrument the person, or the entity upon behalf of which the instrument. WITNESS my hand and official seal. Notary Signature	isfactory evidence) to be the nd acknowledged to me that d that by his/her signature on
	Notary Public - Call of the Santa Clara County My Cornm. Expires Oct 3, 2003

5. Inventor Signature: Zia Karim M. Ziaul Kanm	Date: 2/27/02
State of California)	M. Ziaul Kara
County of Santa Clara ss.	Poll?
On this 27 day of February, in the Notary Public personally apperent Rown to me (or proved to me on the basis of satisfactory evidename is subscribed to the within instrument, and acknowledged the same in his/her authorized capacity(ies), and that by his/her the person, or the entity upon behalf of which the person acted, exwitteness my hand and official seal. Notary Signature	ence) to be the person whose I to me that he/she executed r signature on the instrument
ROLAND TSO Commission # 1236984 Notary Public - California Santa Clara County My Comm. Expires Oct 8, 2003	My Constant of the Constant of